

REMARKS

Claims 1 – 23 are presented for examination. Claims 3-23 have been added.

New Claims 3 to 23 are supported by preferred embodiments (3) to (14) mentioned in page 3 to 5 of the specification, as well as page 29, line 24 through page 30, line 4, page 39, line 10 through page 41, line 14 of the specification. No new matter has been added.

Claims 1 and 2 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of Wakabayashi et al. (U.S. Patent No. 6,887,944) in view of Okamoto et al. (JP8-176374) and/or Hisada et al. (JP5-50236) (Office Action, p.2)

The claimed invention is patentable distinct from claims 1 through 4 of Wakabayashi. As described in detail below, the claimed invention is novel and unobvious over the cited references. A double patenting rejection does not apply between the cited references and the amended claims of the claimed invention and withdrawal of the rejection is respectfully requested.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakabayashi et al. (U.S. Patent No. 6,887,944) in view of Okamoto et al. (JP 8-176374) and/or Hisada et al. (JP5-5923). (Office Action, p. 3)

Wakabayashi discloses a modified polypropylene having an upper limit of racemic diad of 0.88. The range, 0.12 to 0.50, of the racemic diad fraction [r] in claim 1 is not disclosed or suggested in Wakabayashi et al.

The racemic diad fraction [r] is critical in the claimed invention. When the racemic diad fraction [r] of the polypropylene is too low, the thermal stability of the polypropylene is lowered. On the other hand, when the racemic diad fraction [r] of the polypropylene is too high, the solubility of the polypropylene in an organic solvent is lowered, as explained in the specification on line 3 from the bottom of page 29 to page 30, line 4 (or [0072] of the publication):

Its racemic diad fraction [r] is preferably in a range from 0.51 to 0.88, particularly preferably 0.55 to 0.84. Polypropylene may not have high thermal stability when its racemic diad fraction [r] is below 0.12, and may not be sufficiently soluble in an organic solvent when it is above 0.88.

Polypropylene having a racemic diad fraction [r] in a range from 0.12 to 0.88 will exhibit high thermal stability, i.e., high heat resistance, and be highly soluble in a polar solvent.

The specification of Wakabayashi states that the polymers of that invention are "realized by reacting a polypropylene having a value of racemic diad fraction [r] in a specific range and modified with a specific compound." (Wakabayashi, col. 2, lines 21-

23). The current invention satisfies neither the range of the racemic diad fraction nor the specific compounds with which the propylene is modified in Wakabayashi.

Additionally, the fact that the modified polypropylene of Wakabayashi and the emulsion composition of modified polypropylene of the claimed invention find similar end uses is not relevant to patentability, given the claimed chemical differences.

With regard to claim 2, the Examiner is correct, the references cited are silent as to solubility. As Wakabayashi does not teach or suggest the emulsion composition of modified polypropylene of the claimed invention, the polymer is not substantially the same as that described in Wakabayashi and therefore does not exhibit substantially the same properties.

The Okamoto and Hisada references are cited for showing that modified polyolefins can be used in the form of an emulsion. Without Wakabayashi there is no motivation to apply Okamoto or Hisada. The claimed invention is not for emulsions, but for an emulsion composition of modified polypropylene which is highly soluble in a solvent and can be easily emulsified.

Because of the chemical differences now claimed, withdrawal of the rejection is respectfully requested.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatenable over Tomita et al. (U.S. 5,252,677) in view of Woodhams (U.S. 4,442,243). (Office Action, p.3)

The range, 0.12 to 0.50, of the racemic diad fraction [r] in claim 1 is not disclosed or suggested in Tomita et al., the importance of which is explained above.

Again, with regard to claim 2, the Examiner is correct, the Tomita is silent as to solubility. As Tomita does not teach or suggest the emulsion composition of modified polypropylene of the claimed invention, the polymer is not substantially the same as that described in Tomita and therefore does not exhibit substantially the same properties.

Woodhams is cited for disclosing sulfonated polypropylene as a binding aid.

Without additional showing or motivation in the combination of references, a logical conclusion of obviousness cannot be made. Accordingly, withdrawal of the rejection is respectfully requested.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Dated: October 25, 2007

Respectfully submitted,

By 

James E. Armstrong, IV

Registration No.: 42,266

EDWARDS ANGELL PALMER & DODGE
LLP

P.O. Box 55874, Boston, MA 02205

(202) 478-7370

Attorneys/Agents For Applicant